

DEVICE FOR PREVENTING THE DISPLACEMENT  
OF AN OPTICAL ELEMENT

5    Cross Reference to Related Applications

[001]    This is a U.S. National Phase entry under 35  
U.S.C.   §   371   of   International   Application   No.  
PCT/EP2004/009326   filed   August   20,   2004   which  
10   designated the U.S. and at least one other country in  
addition to the U.S. and which claimed priority to  
German Patent Application No. 103 39 362.5 filed August  
27, 2003.

15   Background of the Invention

[002]    The invention relates to a device for  
preventing the creeping of an optical element, in  
particular a lens or a mirror, the optical element  
20   being connected to a mount via connecting members  
arranged on the circumference of the optical element,  
and the position of the optical element in an objective  
deviating from the vertical axial position.

25   [003]    To date, in semiconductor lithography, optical  
elements have been held in a mount by means of various  
clamping techniques, clamping in combination with self-  
closure and via bonded connections, for example by  
gluing. It is generally known that in the case of  
30   screwed connections it is necessary to shape the screws  
so as to keep the elasticity of the screw shank as low  
as possible in order to keep within a tolerable range  
the loss of prestressing force owing to setting and  
relaxation effects of the shaft. Elements of high  
35   elasticity are used with clamped connections or  
mechanical coupling points in order to thus minimize  
the effects of tolerances during installation, and to